

TIRF USA Road Safety Monitor 2021

Alcohol-impaired driving & COVID-19 in the United States

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This fact sheet summarizes the national results of the 2021 USA Road Safety Monitor (USA RSM) on alcohol-impaired driving. This is the seventh annual public opinion survey conducted by the Traffic Injury Research Foundation USA, Inc. (TIRF USA) with sponsorship from Anheuser-Busch Foundation. The survey takes the pulse of the nation regarding the alcohol-impaired driving issue by means of an online survey of a random, representative sample of U.S. drivers aged 21 years or older. A total of 1,498 drivers completed the poll in September 2021 (results can be considered accurate within plus or minus 2.5%, 19 times out of 20).

This fact sheet summarizes key findings regarding the prevalence of alcohol-impaired driving, reasons for engaging in this behavior and characteristics of these drivers. Survey results are compared to data from previous years. In response to the COVID-19 pandemic, this RSM also describes the effects of the pandemic on risky driving behaviors. Research showed decreased traffic volumes led to increases in speeding and impaired driving (Hughes et al. 2020; Thomas et al. 2020; Vanlaar et al. 2021) and this survey provides additional insight.

Background

What proportion of total crashes involve alcohol-impaired driving?

According to the National Highway Traffic Safety Administration (NHTSA), the overall fatality rate decreased from 2016 to 2019 before rising in 2020. Vehicle miles traveled (VMT) decreased by 13.2% from 2019 to 2020 and the estimated fatality rate per 100 million VMT decreased by 3.5 percent from 1.14 in 2018 to 1.11 in 2019 before rising to 1.37 in 2020 (NHTSA

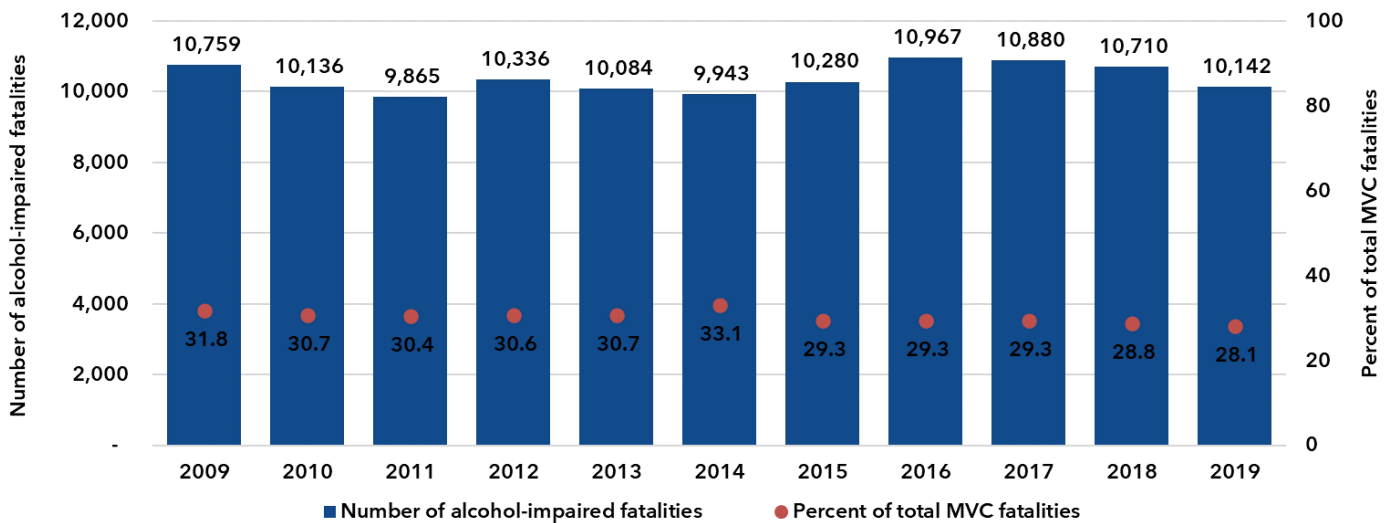
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2020; FHWA 2021). According to the most recent available NHTSA data, there was a 5.3% decrease in alcohol-impaired driving fatalities from 2018 to 2019. Figure 1 shows fatalities involving a driver with a blood alcohol concentration (BAC) of .08 or greater accounted for 28% of total motor vehicle crash (MVC) fatalities in 2019 (or 10,142 lives lost) compared to 2018, when the number of fatalities was 10,710 (29.1% of total MVC fatalities) (NCSA, 2020). The percent of alcohol-impaired driving fatalities of all driving fatalities in 2019 represents the lowest percentage since the beginning of data collection on alcohol in 1982. Information on this statistic for the data years 2020/2021 was not yet available at the time of writing this fact sheet. However, as there was a general lessening of COVID-19 pandemic restrictions, preliminary data from the first half of 2021 show a 13.0% increase in VMT compared to the first half of 2020 and an 18.4% increase in the fatality rate per VMT.

Figure 1: Alcohol-impaired driving fatalities from 2009 to 2019



Source: NHTSA Traffic Safety Fact Sheets

Where does the issue of alcohol-impaired driving sit on the public agenda?

In 2021, U.S. drivers were asked how concerned they were about various societal issues, including the COVID-19 pandemic. Almost 3 in 5 (59%) U.S. drivers reported they were very or extremely concerned about the pandemic. Comparatively, 65% of U.S. drivers reported they were very or extremely concerned about alcohol-impaired driving. More than half of respondents were concerned about road safety (57%) and gun control (53%). Concern about other issues such as unemployment (44%) and immigration (41%) were lower.

Is alcohol-impaired driving a major road safety problem for U.S. drivers?

Figure 2 shows the percentage of U.S. drivers who agreed various road safety issues are a serious or very serious problem. In 2021, 78% of U.S. drivers reported alcohol-impaired driving as a serious problem, an insignificant decrease from 81% in 2020. Only texting and driving was reported as a greater road safety issue than alcohol-impaired driving, as 80% of drivers believed this was a serious problem in 2021, a significant decrease from 83% in 2020. Fewer drivers (69%) believed drug-impaired driving was a serious problem compared to the issue of alcohol-impaired driving, but the proportion of drivers reporting it as a serious problem remains relatively unchanged from last year (70% in 2020). Excessive speeding was regarded as a serious problem by 69% of respondents, remaining unchanged from 69% in 2020. Talking on a hand-held phone while driving was regarded as a serious problem by 67% of U.S. drivers, and has been constant at 67% for five years in a row.

More than half (53%) of respondents believed marijuana-impaired drivers were a serious problem, an insignificant decrease from 54% in 2020. Similarly, 52% believed driving without wearing a seatbelt was a serious problem, compared to 54% in 2020, albeit an insignificant decrease. Meanwhile, 52% believed driving after vaping marijuana was a serious problem, remaining unchanged from 52% in 2020.

Figure 2: Percent of U.S. drivers who think various road safety issues are a serious or very serious problem

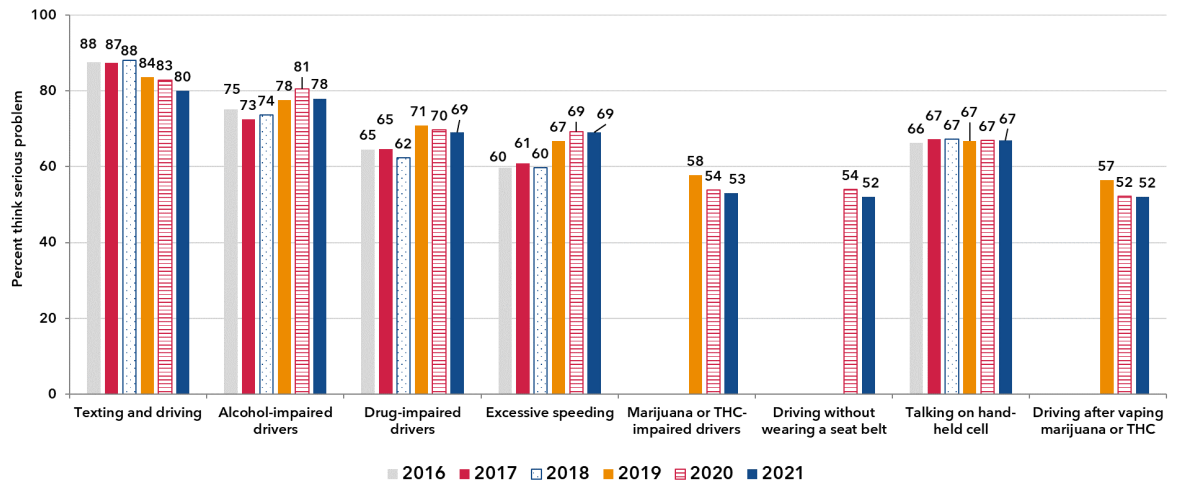
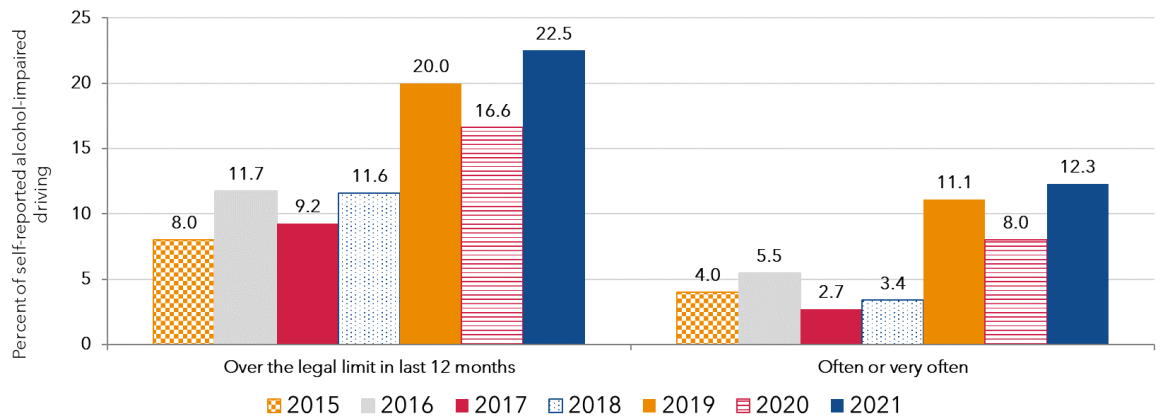


Figure 3: Percent of U.S. drivers self-reporting alcohol-impaired driving in 2015-2021



Alcohol-impaired driving behaviors as reported by U.S. drivers

How prevalent is alcohol-impaired driving among U.S. drivers?

Self-reported alcohol-impaired driving by U.S. drivers is presented in Figure 3. Respondents were asked two questions. First, they were asked how many times in the past 12 months they had driven when they thought they were probably over the legal limit. Results on the left-hand side of the figure show the percent of drivers each year who answered one or more times. Second, respondents were asked how often they drove impaired, using a scale from 1 (never) to 6 (very often). On the right-hand side, results indicate the percent of those who reported 5 or 6 on this scale.

These results revealed the percentage of respondents reporting driving when they thought they were over the legal limit in the last 12 months increased significantly from 16.6% in 2020 to 22.5% in 2021. This represents a 35.5% increase from 2020. In addition, it is the highest percentage observed since 2015. Additionally, the percentage of respondents reporting driving impaired often or very often also increased significantly, from 8% in 2020 to 12.3% in 2021.

The percentage of respondents reporting driving when they thought they were over the legal limit in the last 12 months increased significantly from 16.6% in 2020 to 22.5% in 2021.

What are the reasons why U.S. drivers drove when they thought they were over the legal limit?

The most common response was they thought they were okay to drive (40.5%), up from 31.7% in 2020. An additional 12.4% reported they thought they could drive carefully regardless, also up from 8.6% in 2020. In addition, 10.4% believed they would not be caught (compared to 9.1% in 2020) and 7.4% thought there was no alternative to driving (compared to 11.9% in 2020). Other reasons drivers drove when they were over the legal limit included 6.5% who drove earlier than planned, 6.2% each for those who did not think about it and those who did not know why they drove while impaired, while 4.1% said they were not driving very far.

Among all U.S. drivers who drove when they thought they were over the legal limit (22.5%), two-fifths (40.5%) continue to believe they were okay to drive. This suggests they do not understand the impairing effects of alcohol on driving or the risk they pose to themselves and other drivers on the road. These results continue to support the need for educational campaigns designed to help drivers recognize they are not able to judge their own level of impairment or ability to drive after drinking.



Given that there was an increase in the percentage of respondents who believed they would not get caught, this highlights the continued importance of high-visibility enforcement to deter these drivers. On the other hand, fewer respondents suggested there were no alternatives to driving while impaired by alcohol in 2021 compared to 2020. Vanlaar et al. (2020) found significant changes in the preferred method of travel as a result of the pandemic, with a significant decrease of 89.3% in the use of public transit, and a significant decrease (55.7%) in the use of a taxi or rideshare. This more recent decrease in U.S. drivers reporting there were no alternatives may be an indication that people are more willing to again use public transport and ridesharing.

What are the characteristics of respondents who reported driving while they thought they were over the legal limit?

Data were analyzed to determine if there were any relationships between people who reported driving while they thought they were over the legal limit within the last 12 months and their age, sex, the distance they drive, the number of tickets issued, and whether they had previously been injured in a collision. Analysis of the aggregated data from 2017-2021 revealed the following significant results:

- > Older drivers were less likely to report driving when they thought they were over the legal limit (for every one-year increase in age there is a decrease of 3.7%). To illustrate, in 2017-2021, 47.7% of respondents aged 21 to 29 years and 45.2% of those aged 30 to 39 reported this behavior, whereas 12.2% of those aged 50 to 59 and 9.2% of those over age 60 admitted to driving when over the legal limit.

- > Males were 143% more likely than females to report driving while they thought they were over the legal limit.
- > With respect to tickets received in the past 12 months, those who received two or more of them were approximately 16 times more likely to report driving when they thought they were over the legal limit compared to those who received fewer than two tickets.
- > Persons who had been injured in the past in a motor vehicle crash were 89% more likely to report driving when they thought they were over the legal limit compared to those who had not been injured before.
- > Drivers who drove often during the day were 47% less likely to drive when they thought they were over the legal limit than drivers who did not. On the other hand, drivers who drove often at night were 55% more likely to report driving when they thought they were over the legal limit.

What are the characteristics of respondents who reported driving impaired often or very often?

Data were analyzed to determine if there were any relationships between people who reported driving impaired often or very often and their age, sex, the distance they drive, the number of tickets issued, and whether they had previously been injured in a collision. Based on the aggregated data from the past five years, the following significant results were found, similar to those in the previous section:

- > From 2017-2021, older drivers were less likely to report driving impaired often or very often (for every one-year increase in age there is a decrease of 1.8%). To illustrate, 18.8% of respondents aged 21 to 29 years and 23.6% of those aged 30-39 reported this behavior, whereas among those aged 50 to 59 years approximately 5.6% and 1.9% of those over age 60 reported this.
- > Males were 68.4% more likely than females to report driving impaired often or very often.
- > With respect to tickets received in the past 12 months, those who received two or more of them were 10 times more likely to report driving impaired often or very often compared to those who received fewer than two tickets.
- > Persons who had been injured in the past in a motor vehicle crash were 193% more likely to report driving impaired often or very often compared to those who had not been injured before.
- > Persons who drove often at night were 144% more likely to report driving impaired often or very often compared to those who did not drive often at night.

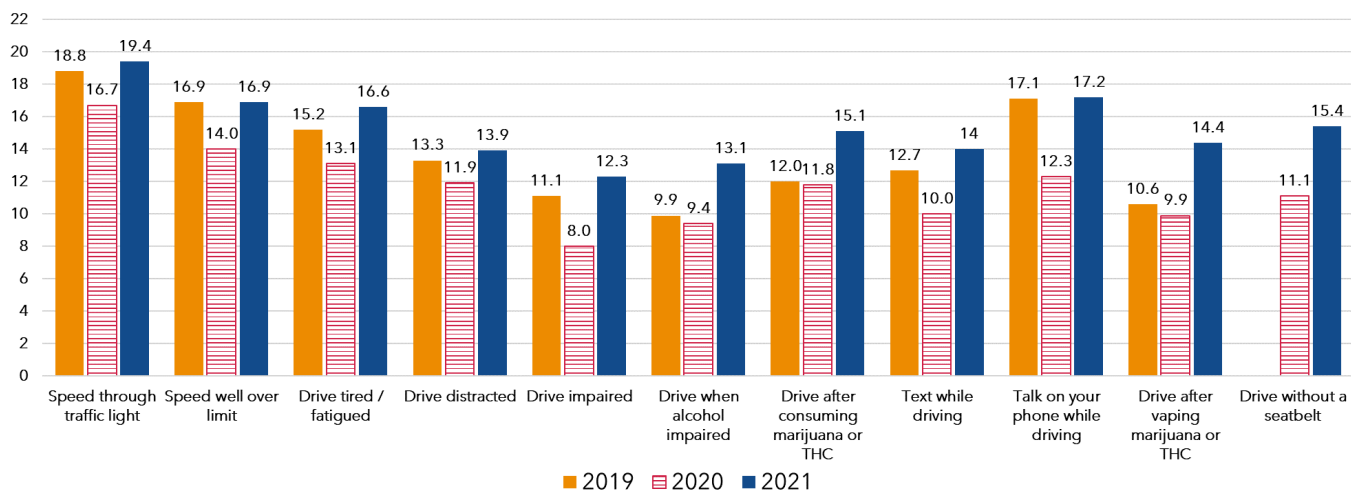
Effects of the COVID-19 pandemic on risky driving behaviors

Since the World Health Organization (WHO) declared a world-wide pandemic in March 2020 there has been a substantial decrease in vehicle miles traveled (VMT) and traffic volumes. However, this decrease in traffic volume has led to an increase in risky driving behaviors such as excessive speeding and impaired driving (Carter 2020; Thomas et al. 2020; NCSA 2021b) as well as a possible changes in profiles of risky drivers (Vanlaar et al. 2021). Preliminary data also indicates there has been a decrease in overall crashes, but an increase in crash severity (Hughes et al. 2020). Figure 4 shows the percentage of U.S. drivers who reported that they often engaged in various dangerous driving behaviors from 2019 to 2021. As can be seen, there is an increase in each dangerous driving behavior.

Alcohol-impaired driving was reported by 13.1%³ of drivers, and was less often reported than some risky driving behaviors, such as speeding (speed through a traffic light: 19.4%; speed well over the limit: 16.9%), fatigued driving (16.6%), driving without a seatbelt (15.4%) and distraction-related behaviors (talk on your phone while driving: 17.2%; drive distracted: 13.9%; text while driving: 14%). Marijuana-impaired driving (15.1%) was reported more often than driving when impaired by alcohol (13.1%), but it was not a statistically significant difference. In general, all dangerous driving behaviors were reported more often in 2021 compared to 2020. While the vast majority of drivers took extra care and were less likely to engage in certain risky driving behaviors during COVID-19, a smaller but significant proportion of drivers indicated they were more likely to take risks during the pandemic, which can help explain the preliminary data demonstrating an increase in speeding, impaired driving, and more severe crashes as a result of the pandemic (Hughes et al. 2020; Thomas et al. 2020, NCSA 2021b).

The 2021 RSM questionnaire also explored the effects of the COVID-19 pandemic on road safety, asking respondents about various self-reported unsafe driving behaviors including alcohol-impaired driving, speeding, distracted driving, drug-impaired driving, and restraint use. Specifically, respondents were asked how likely they were to engage in these risky behaviors during the COVID-19 pandemic, compared to their typical behavior before the pandemic. The questions were asked on a scale from 1 (far less likely) to 5 (far more likely); for scoring purposes, respondents were coded as more likely to engage in these behaviors while driving if they chose a 4 or 5. The results are shown in Figure 5.

Figure 4: Percent of U.S. drivers who often or very often engage in dangerous driving behaviors, 2019-2021



Alcohol and driving. Respondents were asked how likely they were to have driven a motor vehicle within two hours of using alcohol during COVID-19. There were 10.5% of drivers who admitted they were more likely to engage in this behavior. More than six out of ten U.S. drivers (64.2%) indicated there was no change in this behavior during the pandemic. Finally, 25.3% reported being less likely to drive within two hours of using alcohol during the pandemic.

Excessive speeding. Respondents were asked how likely they were to excessively exceed the posted speed limit during COVID-19. A total of 11.7% of U.S. drivers admitted they were more likely to excessively exceed the posted speed limit during this time, as compared to before the pandemic. A sizable proportion of respondents reported there was no change in their speeding behaviors during the pandemic (59.4%). Finally, some respondents reported more cautious behaviors during the COVID-19 pandemic, with 28.9% of respondents reporting they were less likely to speed.

Drugs and driving. Respondents were asked how likely they were to have driven a motor vehicle within two hours of using drugs during COVID-19. There were 10.5% of respondents who reported they were more likely to engage in this behavior. Respondents who indicated this behavior was more likely were also asked to indicate the substance most frequently used before driving. Marijuana was the most frequently used drug by 37.2% of respondents. Prescription drugs that may affect driving were most frequently used by 35.3% of respondents. Illegal drugs were most frequently used by 14.1% of respondents. There was a large proportion of U.S. drivers who reported there was no change in the likelihood of having driven within two hours of using drugs during the pandemic (67.1%). Conversely, 22.4% reported they were less likely to drive a vehicle within two hours of using drugs during COVID-19.

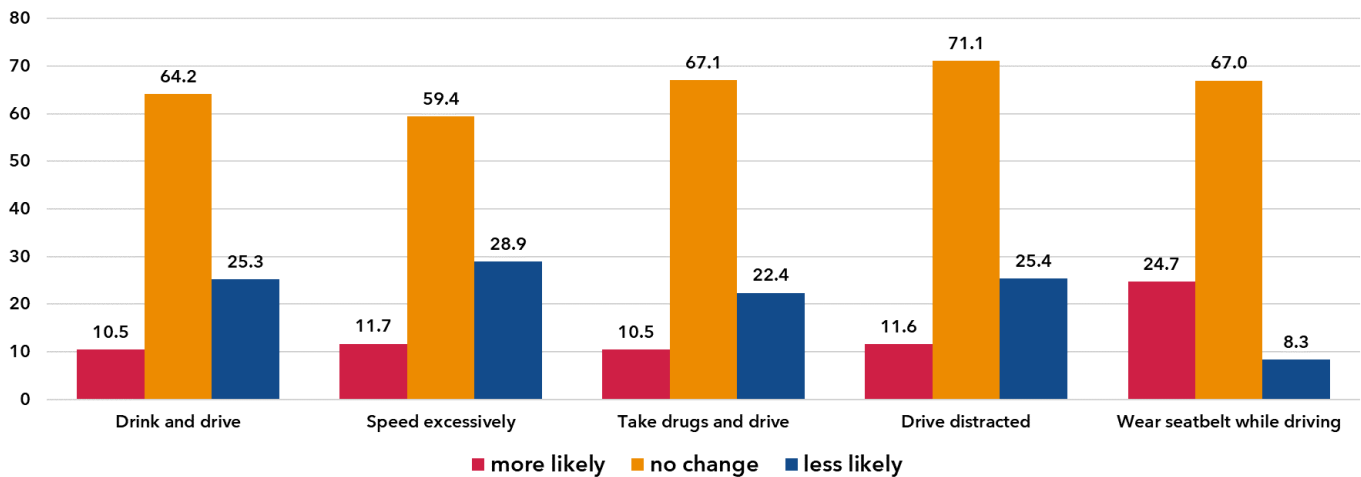
Distracted driving. Respondents were asked how likely they were to have been distracted while driving during COVID-19. A total of 11.6% of respondents indicated they were more likely to have been distracted. Respondents who indicated this behavior was more likely were asked to specify the most frequent cause of distraction, and 37.4% of U.S. drivers stated talking on the cell phone as the primary reason for their distraction. The majority of respondents indicated there was no change in their behavior during the pandemic (71.1%). There were 25.4% who reported they were less likely to be distracted while driving.

Seatbelt use. Respondents were asked whether they were more or less likely to wear their seatbelt while driving during the pandemic. A total of 8.3% admitted they were less likely to do so during COVID-19. Two-thirds of (67.0%) U.S. drivers indicated there was no change in this behavior and 24.7% of respondents indicated they were more likely to use their seatbelt during COVID-19.

During the COVID-19 pandemic over 8% of drivers reported they were more likely to drive distracted, drive alcohol-impaired, drive within two hours of using drugs, and to not wear a seatbelt.

COVID-19 summary. Overall, the majority of drivers did not change their behavior, whereas a sizeable proportion of drivers indicated they took fewer risks on the road during the pandemic. It is possible persons taking fewer risks had a heightened awareness about safeguarding their own health. More concerning, a notable proportion of U.S. drivers indicated they were more likely to engage in risky driving behaviors during the pandemic, as compared to before. Specifically, 10.5% of drivers indicated they were more likely to drive within two hours of consuming alcohol, and an even greater percentage of drivers (11.7%) admitted to excessively speeding during the pandemic. The current U.S. RSM data also shows a comparable percentage of drivers were likely to regard alcohol-impaired driving and excessive speeding as serious problems in 2021, as compared to previous years. Altogether, this might suggest U.S. drivers may have observed these issues more frequently on their roads during the pandemic and were therefore more likely to report them as serious road safety issues this year. Findings regarding the effects of COVID-19 on other risky driving behaviors are also concerning, as more than 8% of U.S. drivers reported they were more likely to drive distracted, drive within two hours of using drugs, and to not wear a seatbelt.

Figure 5: Percentage of U.S. drivers that have changed driving behaviors during the pandemic

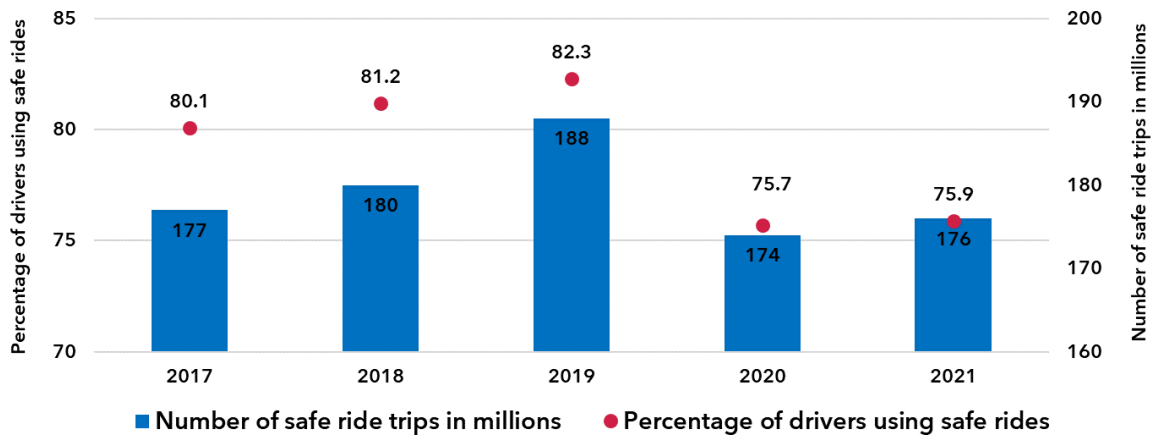


Safe rides

What proportion of drivers report using safe rides?

The proportion of respondents indicating they had been a designated driver, used a designated driver, used a taxi or public transportation or ridesharing in 2021 was 75.9% (Figure 6). Although this represents little change (0.3% increase) from 2020, it accounts for an 7.8% decrease from 82.3% in 2019. The COVID-19 pandemic may have affected the use of safe rides, as Vanlaar et al. (2021) demonstrated a decrease in the use of both public transit and ridesharing during the pandemic. It is possible this decrease in the 2020-2021 period was due to the reticence to use a shared mode of transportation for fear of being exposed to the COVID-19 virus.

Figure 6: Trends in the use of safe rides 2017-2021



Conclusions

Data from 2021 revealed a significant increase in self-reported alcohol-impaired driving, resulting in the highest percentage of respondents admitting to this behavior compared to past years. Continued monitoring of the data are needed to determine whether self-reported alcohol-impaired driving continues to increase (as had been seen from 2015 to 2019) or begins to decline. In addition, any increases or decreases in this self-reported behavior will need to be compared with the number and percentage of alcohol-impaired driving fatalities once more fatality data becomes available.

Concern about alcohol-impaired driving remained high and was greater than concern about the COVID-19 pandemic. The most recent data about the effects of COVID-19 on road safety indicates there has been an increase in impaired driving and speeding, as well as serious crashes (Hughes et al. 2020; Thomas et al. 2020; Carter et al. 2020). In this regard, respondents were more likely to regard alcohol-impaired driving and speeding as serious road

safety problems in 2021, as compared to 2019, possibly because they observed the effects of the pandemic on the roads.

Despite greater concern about alcohol-impaired driving, a larger proportion reported driving when they thought they were over the legal limit and a larger share of respondents admitted to often engaging in this behavior in 2021 than in 2019. The primary reason for drivers reporting this behavior was they believed they were okay to drive. Of concern, this percentage increased by 27.8% from 2020 to 2021. This suggests a large proportion of drivers still fail to recognize the impairing effects of alcohol or do not understand how alcohol affects their driving abilities. Interestingly, the second reason most often reported in 2021 was no longer a lack of alternative options for transportation but rather the belief they could drive carefully regardless of being over the limit. This also points to a lack of understanding of the risks associated with the impairing effects of alcohol. The fact that the lack of alternative options for transportation is no longer second may be due to people's willingness to again rely on public transportation and rideshares following the significant decreases observed initially during the pandemic (Vanlaar et al. 2020). Regardless, there was a decrease from 188 million drivers in 2019 indicating they had been a designated driver, used a designated driver, used a taxi or public transportation or ridesharing, to 174 million in 2020. Although this number rose slightly to 176 million in 2021, further monitoring is essential.

The pandemic also had an impact on other risky driving behaviors, with a notable proportion of drivers reporting they were more likely to drive within two hours of consuming alcohol, as well as excessively speed during the pandemic as compared to before it. Some drivers also reported they were more likely to drive distracted, drive under the influence of marijuana, or drive without a seatbelt. The large majority of respondents indicated their behavior did not change, and most positively, a smaller proportion reported they were less likely to engage in these risky driving behaviors. Reported dangerous driving behaviors irrespective of the pandemic nevertheless

show a high prevalence in 2020 and even higher so in 2021. This provides insight into the 18.4% increase in the fatality rate per VMT in 2021 as compared to 2020.

The full impact of the COVID-19 pandemic on road safety is presently unknown but it has had a concerning impact on drinking and driving according to these survey results. These data can complement crash and fatality data, and ultimately offer a more in-depth understanding of how the pandemic has affected road safety, and how continued restrictions and reduced traffic volumes may affect driver behavior. Specifically, these data indicate the need for enforcement strategies to reduce and prevent alcohol-impaired driving that are adapted accordingly, as a small but notable proportion of drivers were more likely to drive impaired. This may be a new



group of drivers who were previously not engaging in this behavior, the same group of drivers who became even more prone to driving alcohol-impaired, or a combination of both. Regardless, adapted enforcement strategies are needed.

In conclusion, there were increases in the percentage of drivers who reported driving while impaired as well as the percentage of drivers who engaged in other risky driving behaviors in 2021. Also, the percentage of drivers stating they relied on safe rides as an alternative strategy to avoid alcohol-impaired driving in 2021 was still lower than in 2019. As an increasing amount of resources are focused on the health of Americans during the pandemic, targeted education and enforcement efforts to reduce and prevent impaired driving are essential to lessen the burden of the issue, especially in light of the current road safety climate.

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³ The difference with the percent reported in Figure 3 is because this question used a slightly different answering scale. Despite this non-significant difference, the results are remarkably close (13.1% versus 12.3%).

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